UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OFFICE OF
WATER AND
WATERSHEDS

February 28, 2019

William M. Lind
Southern Snake Branch Chief
National Marine Fisheries Service
West Coast Region
800 E. Park Blvd, Plaza IV, Suite 220
Boise, Idaho 83712

Re: Reasonable and Prudent Alternative for the Copper Aquatic Life Criteria in the 2014 Biological Opinion on Idaho's Water Quality Standard for Toxic Substances

Dear Mr. Lind:

The purpose of this letter is to confirm that the U.S. Environmental Protection Agency's proposed approval of Idaho's revised aquatic life criteria for copper complies with the reasonable and prudent alternative (RPA) for copper set forth in the National Marine Fisheries Service's May 7, 2014 Biological Opinion on Idaho's toxics water quality standards (NMFS Tracking Number: 2000-1484). On January 28, 2019, the EPA received from the Idaho Department of Environmental Quality (DEQ) the revised aquatic life criteria for copper for agency review and action under the Clean Water Act section 303(c). The Enclosure 1 to this letter summarizes the background information associated with copper water quality standard revisions submitted by DEQ.

The RPA for the aquatic life criteria for copper stated:

> *"The EPA shall ensure, either through EPA promulgation of criteria or EPA approval of a state-promulgated criteria, that new acute and chronic criteria for copper are in effect in Idaho within 3 years of the date of this Opinion. The new criteria shall be no less stringent than the Clean Water Act section 304(a) 2007 national recommended aquatic life criteria (i.e. the BLM Model) for copper. NMFS does not anticipate that additional consultation will be required if the 2007 national recommended aquatic life criteria for copper are adopted."*

Furthermore, Appendix C of the Idaho Toxics Biological Opinion contained an evaluation of the protectiveness and accuracy of the copper Biotic Ligand Model (BLM), as well as implementation considerations such as how to calculate protective criteria in the absence of BLM-input data and when to collect data to input into the BLM.

The EPA has reviewed the DEQ submission, including the *Implementation Guidance for the Idaho Copper Criteria for Aquatic Life, Using the Biotic Ligand Model, August 2017*, and determined it is consistent with the RPA. DEQ's rule specifies that copper criteria will be

derived using the BLM, consistent with EPA's 2007 national recommended aquatic life criteria for copper. Importantly, DEQ's rule also specifies that input data used to run the BLM "shall be planned to capture the most bioavailable conditions for copper." In the *Implementation Guidance* that DEQ incorporated into its rule by reference, the state has given consideration to when copper might be most bioavailable and how to ensure collection of BLM inputs during those times (e.g., "when designing monitoring programs or assessing data for derivation of BLM criteria, users should consider using continuous pH data to capture the daily variability of pH at a given site or collecting samples early in the day when temperatures and pH are generally at their lowest." (p. 16), and "DOC is usually at its lowest concentrations in late fall in Idaho, based on data that is considered representative of streams supporting anadromous fish (Appendix C of NMFS 2014)." (p. 20)).

DEQ's *Implementation Guidance* also discusses other important considerations such as how to address situations where data are unavailable to run the BLM, and how to reconcile multiple BLM outputs under different circumstances. Appendix C (Table 3) of the BiOp provides some examples of how conservative estimates might be calculated from various datasets in the absence of site-specific data for the BLM. DEQ followed a similar process to calculate conservative estimates that can be used in the absence of site-specific data. While DEQ used its own dataset that is not necessarily comparable to the various datasets evaluated in Appendix C (Table 3), the conservative estimates that DEQ included in its *Implementation Guidance* are roughly comparable for the waters in question (see Enclosure 2). The EPA expects by adopting the language into rule regarding implementation of the model during the times and conditions when copper is most bioavailable, coupled with the information in the *Implementation Guidance*, DEQ will implement the criteria in a manner that is protective of designated uses and consistent with the Opinion.

The EPA appreciates the collaborative working relationship with NMFS and assistance we continue to receive from Johnna Sandow of your office. If you have any questions or would like to discuss further, please contact Lisa Macchio, the EPA staff lead, at (206) 553-1834.

Sincerely,

Hanh Shaw, Manager
Water Quality Standards Unit

Enclosures

Electronic cc: Johnna Sandow, NMFS
Jason Pappani, DEQ

Enclosure 1 to the EPA's Letter Confirming Compliance with the Reasonable and Prudent Alternative for the Copper Aquatic Life Criteria

Background

In October 2015, DEQ initiated the negotiated rule making process to revise Idaho's copper aquatic life criteria. DEQ initiated the rulemaking, rule docket 58-0102-1502, in response to the reasonable and prudent alternatives identified in the biological opinions from the National Marine Fisheries Service and U.S. Fish and Wildlife Service, which determined that Idaho's previous copper criteria were likely to jeopardize the continued existence of endangered species and result in the destruction or adverse modification of designated critical habitat under the Endangered Species Act.

DEQ held nine negotiated rulemaking and guidance development meetings between October 28, 2015 and July 18, 2017, including four public comment periods for various drafts of the rule. A fifth draft was published as the proposed rule in the September 6, 2017 Idaho Administrative Bulletin, followed by a formal 30-day comment period. The rule was finalized by the 2018 Legislature and became effective under Idaho Law on March 28, 2018. The rule references the "Implementation Guidance for the Idaho Copper Criteria for Aquatic Life: Using the Biotic Ligand Model," which details procedures for implementing the criteria.

Consistent with the federal water quality standards regulations at 40 C.F.R. §§ 131.11 and 131.12, states must adopt water quality criteria that protect the designated use. In establishing criteria for toxic pollutants, states should establish numerical values based on:

- The EPA's 304(a) guidance; or
- Modifying the EPA's 304(a) guidance to reflect site-specific conditions; or
- Other scientifically defensible methods.

More information on the EPA's nationally recommended 304(a) aquatic life criteria for copper can be found at: https://www.epa.gov/wqc/aquatic-life-criteria-copper

Additional information and documents related to DEQ's revised copper criteria are available at the following:

- Copper rule revisions: http://www.deq.idaho.gov/media/60180617/58-0102-1502-proposed-rule-notice-0817.pdf
- Response to comments: http://www.deq.idaho.gov/media/60180837/58-0102-1502-public-comment-summary-1017.pdf
- Guidance document incorporated by reference in rule: http://www.deq.idaho.gov/media/60180840/58-0102-1502-implementation-guidance-idaho-copper-criteria-aquatic-life-1117.pdf

Enclosure 2

Appendix C Subbasin	Appendix C Cu Benchmark Concentration (µg/L)	Comparable ID Basin or Ecoregion	Comparable ID Conservative Estimate
Selway, Lochsa, MF Clearwater R	0.6	Northern Rockies ecoregion	0.9
SF Clearwater River	1	Northern Rockies ecoregion	0.9
MF and SF Salmon and tributaries	1	Northern Rockies ecoregion	0.9
Upper Salmon R	3	Salmon Basin	2.4
Upper Salmon R tributaries	3	Salmon Basin	2.4
Panther Creek	3	Salmon Basin	2.4
Lemhi and Pahsimeroi Rivers	6	Middle Rockies ecoregion	5.2
Lower Salmon (downstream of SF Salmon)	3	Salmon Basin	2.4
Snake River	6	Upper Snake Basin and Snake River Plain ecoregion	1.6-2.0